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(71) Applicant (for all designated States except US): BAY-HILL THERAPEUTICS, INC. [US/US]; Suite 201, 3430 West Bayshore Road, Palo Alto, CA 94303 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BROOME.

Stephanie [US/US]; 1239 Hopkins Avenue, Palo Alto, CA 94301 (US). GARREN, Hideki [US/US], 417 E. Meadow Drive, Palo Alto, CA 94306 (US).

(74) Agents: BASTIAN, Kevin, L. et al.; Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111 (US).

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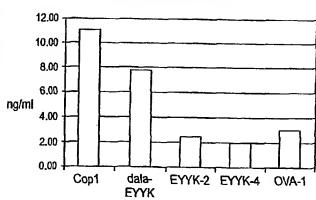
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(54) Title: TREATMENT OF DEMYELINATING AUTOIMMUNE DISEASE WITH MODIFIED ORDERED PEPTIDES

IL4 concentration +/-SEM 3.00 2.50 2.00 ng/ml 1.50 1.00 0.50 0.00 Cop1 dala-EYYK-2 EYYK-4 **EYYK**

IL10 concentration +/-SEM



(57) Abstract: Compositions and methods are provided for the treatment of demyelinating autoimmune disease. Therapeutic doses are administered of a combination of therapeutic ordered peptides or one or more modified therapeutic ordered peptide(s) comprising amino acids representing a consensus sequence of a protein identified as a target of the autoimmune T and B cell response. Of particular interest are therapeutic ordered peptides of the target proteins in multiple sclerosis, for example the myelin proteins MBP, MOG, PLP, MAG and cyclic nucleotide phosphodiesterase. The therapeutic ordered peptide may consist only of the ordered repeats, or may be extended at either termini by the addition of other D- or L- amino acid residues. For therapy, the therapeutic ordered peptides may be administered topically or parenterally, by injection at a particular site, including subcutaneously, intraperitoneally, intravascularly, or the like or transdermally, as by electrotransport. The subject methods are used for prophylactic or therapeutic purposes. The compositions of the invention may also contain other therapeutically active agents, immunomodulators, immunosuppressants, B-interferon, steroids, statins etc.



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